

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A single-lip drill comprising:
a drill head;
a bit integrally formed on the drill head and defining a cutting wedge; and
at least one cutting edge provided on the cutting wedge for machining by cutting of a workpiece,
wherein the cutting edge is associated at least one chip former for shaping the chips cut off by the cutting edge[[,]]; and
wherein the chip former comprises a slot having a substantially U-shaped cross-section and has a positive rake angle (γ) between the tool face and an imaginary line perpendicular to a machining face of the workpiece to be cut; and
wherein a curvature of the chip former is relatively small at the cutting edge and increases with increasing distance from the cutting edge.
2. (Currently amended) The [[S]]single-lip drill according to claim 1, wherein the rake angle (γ) is between 10 and 30°.
3. (Currently amended) The [[S]]single-lip drill according to claim 1, wherein the chip former has a chip guide face for guiding the chips and at least one chip break section for breaking the chips.
4. (Currently amended) The [[S]]single-lip drill according to claim 2, wherein the chip break section is positioned at a distance from the cutting edge suitable for setting a desired chip size.

5. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 4, wherein the distance is between 0.2 and 1.5 mm.
6. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 1, wherein the chip former slot is adjacent to the cutting edge.
7. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 1, wherein a functional coating is provided on at least one functional surface of the single-lip drill.
8. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 7, wherein at least one of the chip former and at least one clearance is provided with the functional coating.
9. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 7, wherein the functional coating is provided on all the functional surfaces participating in the cutting process.
10. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 7, wherein the functional coating is at least partly made from hard material.
11. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 25, wherein a nitride or carbide is provided as the metallic hard material.
12. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 25, wherein titanium aluminium nitride is provided as the metallic hard material.
13. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 7, wherein the functional coating has several layers.

14. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 13, wherein at least one hard material layer and at least one soft material layer adjacent to the hard material layer is provided, the hard material layer forming an outer layer.

15. (Currently amended) A ~~[[M]]~~method for the manufacture of a single-lip drill, the method comprising the following steps:

manufacturing a drill head with an integral single-lip drill geometry to define a cutting wedge,

applying a chip former to the cutting wedge in the vicinity of a bit of the single-lip drill, the chip former comprising a slot having a substantially U-shaped cross-section and having a positive rake angle (γ) between the tool face and an imaginary line perpendicular to a machining face of the workpiece to be cut, a curvature of the chip former being relatively small at the cutting edge and increasing with increasing distance from the cutting edge, and

coating at least part of the surface of the drill head with a functional coating after the chip former has been applied.

16. (Currently amended) The ~~[[M]]~~method according to claim 15, wherein the functional coating is applied following a sharpening of the drill head.

17. (Currently amended) The ~~[[M]]~~method according to claim 15, wherein at least the chip former is coated.

18. (Currently amended) The ~~[[M]]~~method according to claim 15, wherein all the surfaces participating in the cutting process are coated.

19. (Cancelled)

20. (Currently amended) The ~~[[M]]~~method according to claim 15, wherein the chip former slot is formed adjacent to the cutting edge of the bit.

21. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 2, wherein the rake angle (γ) is between 15 and 25°.

22. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 5, wherein the distance is between 0.3 and 0.6 mm.

23. (Cancelled)

24. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 7, wherein the functional coating is configured to increase wear resistance.

25. (Currently amended) The ~~[[S]]~~single-lip drill according to claim 10, wherein the hard material is a metallic hard material.

26. (Cancelled)

27. (New) A single-lip drill comprising:
a drill head;
a bit integrally formed on the drill head and defining a cutting wedge; and
at least one cutting edge provided on the cutting wedge for machining by cutting of a workpiece,

wherein the cutting edge is associated at least one chip former for shaping the chips cut off by the cutting edge;

wherein the chip former comprises a slot having a substantially U-shaped cross-section and has a positive rake angle (γ) between the tool face and an imaginary line perpendicular to a machining face of the workpiece to be cut;

wherein the chip former has a chip guide face extending from the cutting edge towards a bottom of the chip former and a chip break section following the chip guide face, commencing at a

distance from the cutting edge, and extending to a boundary surface with respect to a corrugation for removing a coolant-chip mixture; and

wherein the chip guide face comprises a sloping surface with a constant tangent angle, which sloping surface is followed by a curved chip breaking section.